

Applicant : Stefan Hein  
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### **REMARKS**

Claims 14-20 and 22-42 are pending in the present application. Reconsideration is respectfully requested for the following reasons.

Applicant would like to thank the Examiner for taking the time for a telephone interview on January 4, 2010. In the interview, the Examiner stated that amendments to claims 14 and 31 previously filed on December 3, 2009, and filed with this response, would be entered without the filing of an RCE as long as a Notice of Appeal is also filed. Applicant is filing a Notice of Appeal contemporaneously with this response.

In the Office Action, the subject matter of claim 21 has been added to claims 14 and 31 (along with deleting "vacuum tight" as discussed in more detail below) and claim 21 has been cancelled. Accordingly, the rejection of claims 14, 15, 17-20, 22-24, 27-35, 39 and 40 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,351,348 to Dupuis is moot along with the rejection of claim 25 under 35 U.S.C. §10(b) as being obvious over the Dupuis '348 patent in view of U.S. Patent No. 3,807,058 to Seminski. All claims (except for claim 25) are treated herein as being rejected over a combination of the Dupuis '348 patent in view of U.S. Patent No. 4,808,444 to Yamazaki et al. Claim 25 is treated herein as being rejected over a combination of the Dupuis '348 patent in view of the Yamazaki et al. '444 patent and the Seminski '058 patent.

Claims 14 and 31 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. According to the Office Action, the term "vacuum tight" was not disclosed or defined in the application. While Applicant submits that use of "vacuum tight" in claims 14 and 31 was clearly disclosed in the application as filed, Applicant has deleted "vacuum tight" from the claims to expedite examination. Accordingly, Applicant submits that all claims comply with the written description requirement.

Claims 14-20, 22-24 and 26-42 have been rejected under 35 U.S.C. §103(a) as being obvious over the Dupuis '348 patent in view of the Yamazaki et al. '444 patent. As further discussed below, Applicants respectfully submit that a *prima facie* case of obviousness has not been established. The test for obviousness has recently been addressed by the U.S. Supreme

Court in *KSR Int'l. Co. v. Teleflex, Inc.*, 82 U.S.P.Q.2d 1385 (2007). In its decision, the Supreme Court stated that the teaching-suggestion-motivation (TSM) standard developed by the Federal Circuit was no longer the sole test for determining obviousness. Nevertheless, the Court indicated that the TSM test provides helpful insights as to the obviousness of the invention.

Furthermore, according to M.P.E.P. §2142:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 550 U.S. at \_\_\_, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).

Applicants submit that the Office Action has not clearly articulated the reasons why the claimed invention would have been obvious.

Moreover, while the U.S. Supreme Court held that the TSM standard was not the sole standard for finding obviousness, there is at least one element to the finding of a *prima facie* case of obviousness that is common to both the TSM standard and the standards that may otherwise fall within the purview of the *KSR* decision. Specifically, each and every element of the claimed invention must still be considered. As will be set forth below, there are elements of the claimed invention that are missing in their entirety from the cited prior art.

Amended claim 14 defines an air-lock valve comprising a housing having an opening configured to be traversed by a flexible band substrate and at least one moveable sealing body cooperating with a sealing surface of the housing for closing the opening during a closing phase of the air-lock valve, with the band substrate being clamped between the at least one movable sealing body and the sealing surface. The sealing surface surrounds the opening and the opening is closed by pressing the at least one movable sealing body upon the sealing

surface and/or upon the band substrate traversing the opening such that the at least one movable sealing body closes the opening at least through indirect abutting at edges of the sealing surface. The at least one movable sealing body and the sealing surface each have an arcuate contour. A radius of the sealing surface is larger or equal to the radius of the at least one movable sealing body.

The prior art of record does not obviate the above-noted features of claim 14. Specifically, the Dupuis '348 patent in view of the Yamazaki et al. '444 patent does not include at least one movable sealing body and the sealing surface that each have an arcuate contour and a radius of a sealing surface that is larger or equal to a radius of at least one movable sealing body, along with the remaining features of claim 14. Those skilled in the art would not amend the Dupuis '348 patent by an arcuate contour, because for such an arcuate contour it is necessary to provide a further roller in front of opening 11. And, such further roller would press sealing web 35 against edges of opening 11, which would lead to excessive wear of that web 35 and to the production of contaminations through abrasion of particles. The Yamazaki et al. '444 patent does not disclose the features of claim 14 because the Yamazaki et al. '444 patent does neither show any sealing nor different regions with different atmospheric pressures. In more detail, no sealing is provided between the backing roller 1 and the suction chamber 4. To the contrary, a clearance of 0.2 to 2.2 mm is provided between the web 3 and the suction chamber 4. Furthermore, the references do not disclose traversing a web 3 through an opening within the suction chamber 4. Moreover, the suction chamber 4 of the Yamazaki et al. '444 patent has no sealing surface adapted to fit to a cylinder-like sealing body. The web is wrapped around the backing roller 1 and is not fed through the suction chamber 4. Accordingly, claim 14 is in condition for allowance.

Claims 15-30, 37, 39 and 41 depend from claim 14, and since claim 14 defines patentable subject matter as discussed above, claims 15-30, 37 and 39 define patentable subject matter. Moreover, in regard to claim 28, the cited art of record does not disclose at least one movable sealing body that is moved between an inactive and a closed position by a separate power source. While the Dupuis '348 patent discloses that the rollers 31 and 32 can be rotated

by a drive mechanism, any such drive mechanism would not move the seal structure or sealing means 30 between an inactive and a closed position. Furthermore, the inert gas source is not a power drive. Moreover, in regard to claim 30, the cited art of record does not disclose at least one movable sealing body that is firmly tightened against a sealing surface with a predetermined bearing load by an accumulator. According to the Office Action, an accumulation of pressure firmly tightens a body against a sealing surface of the Dupuis '348 patent. However, an accumulation of pressure is not an accumulator. Moreover, in regard to claim 39, the Dupuis '348 patent does not disclose at least one movable sealing body that closes an opening by abutting a sealing surface to wholly overlap the opening. Accordingly, claims 15-30, 37, 39 and 41 are in condition for allowance.

Claim 31 defines a processing plant for traversing band-like substrates comprising at least one evacuable processing chamber and at least another chamber associated with the at least one evacuable processing chamber for unrolling or winding up the band substrate. The chambers are interconnected through an opening through which the band substrate is guided and at least one air-lock valve provided at the opening. The at least one air-lock valve comprises a housing having the opening and at least one moveable sealing body cooperating with a sealing surface of the housing for closing the opening during a closing phase of the air-lock valve, with the band substrate being clamped between the at least one movable sealing body and the sealing surface. The sealing surface surrounds the opening and the opening is closed by pressing the at least one movable sealing body upon the sealing surface and/or upon the band substrate traversing the opening such that the at least one movable sealing body closes the opening at least through indirect abutting at edges of the sealing surface. The at least one movable sealing body and the sealing surface each have an arcuate contour. A radius of the sealing surface is larger or equal to the radius of the at least one movable sealing body.

The prior art of record does not obviate the above-noted features of claim 31. Specifically, as stated above in regard to claim 14, any combination of the Dupuis '348 patent in view of the Yamazaki et al. '444 patent does not include at least one movable sealing body and the sealing surface that each have an arcuate contour and a radius of a sealing surface that

is larger or equal to a radius of at least one movable sealing body, along with the remaining features of claim 31. As stated above in regard to claim 14, any combination of the references would not include these features. Accordingly, claim 31 is in condition for allowance.

Claims 31-36, 38, 40 and 42 depend from claim 31, and since claim 31 defines patentable subject matter as discussed above, claims 31-36, 38, 40 and 42 define patentable subject matter. Moreover, in regard to claim 34, the cited art of record does not disclose at least one movable sealing body that is moved between an inactive and a closed position by a separate power source. While the Dupuis '348 patent discloses that the rollers 31 and 32 can be rotated by a drive mechanism, any such drive mechanism would not move the seal structure or sealing means 30 between an inactive and a closed position. Furthermore, the inert gas source is not a power drive. Moreover, in regard to claim 35, the cited art of record does not disclose at least one movable sealing body that is firmly tightened against a sealing surface with a predetermined bearing load by an accumulator. According to the Office Action, an accumulation of pressure firmly tightens a body against a sealing surface of the Dupuis '348 patent. However, an accumulation of pressure is not an accumulator. Moreover, in regard to claim 40, the Dupuis '348 patent does not disclose at least one movable sealing body that closes an opening by abutting a sealing surface to wholly overlap the opening. Accordingly, claims 31-36, 38, 40 and 42 are in condition for allowance.

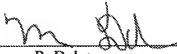
Claim 25 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the Dupuis '348 patent in view of the Yamazaki et al. '444 patent and the Seminski '058 patent. Claim 25 depends from claim 14, and since claim 14 defines patentable subject matter as discussed above, claim 25 defines patentable subject matter. Accordingly, claim 25 is in condition for allowance.

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All pending claims 14-20 and 22-42 are believed to be in condition for allowance, and a Notice of Allowance is therefore earnestly solicited.

Respectfully submitted,

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Date

  
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